

Application No. 10/768,368
Date: October 17, 2005

Please amend the claims as follows:

1. (Presently Amended) A light appliance and a cooling arrangement, comprising:
 - a) a light appliance;
 - b) a ~~substantially sealed~~ liquid-tight enclosure for the light appliance that gives off unwanted heat into surrounding air within the enclosure during operation, the enclosure having an external wall at least part of which is thermally conductive;
 - c) a medium that is in contact with said external wall of the enclosure; and the medium
 - a) having adequate thermal conductivity; and
 - b) being sufficiently cooler than the external wall of the enclosure

that an air circulating device for circulating air, heated by the light appliance or by the air circulating device, to the thermally conductive portion of the external wall for removes ing sufficient heat from the air by dissipating the heat into the cooler medium through said thermally conductive portion so as to substantially increase lifetime of the light appliance.
2. (Originally presented) The combination of Claim 1, wherein the light appliance comprises a filamented lamp.
3. (Originally presented) The combination of Claim 2, wherein the filamented lamp comprises molybdenum leads.
4. (Originally presented) The combination of Claim 2 wherein the lamp is a halogen lamp.
5. (Originally presented) The combination of Claim 1, wherein the light appliance comprises a high intensity discharge lamp.
6. (Originally presented) The combination of Claim 5, wherein the high intensity discharge lamp comprises molybdenum leads.
7. (Originally presented) The combination of Claim 5, wherein the lamp is a high pressure sodium lamp, a high pressure mercury vapor lamp, or an ultrahigh pressure mercury lamp.
8. (Originally presented) The combination of Claim 1, wherein the light appliance further comprises a heat sink for removing heat from the light appliance.
9. (Originally presented) The combination of 1, wherein the light appliance comprises an LED.
10. (Originally presented) The combination of Claim 9, wherein the light appliance further comprises a heat sink for removing heat from the LED.

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11. (Originally presented) The combination of Claim 1, wherein the medium comprises water.
12. (Originally presented) The combination of Claim 1, wherein the medium comprises a solid.
13. (Originally presented) The combination of Claim 12, wherein the solid includes a cooling device for cooling the solid to a sufficiently low temperature to allow substantial dissipation of heat from within the enclosure into the solid through said thermally conductive portion.
14. (Originally presented) The combination of Claim 1 wherein the medium comprises air.
15. (Originally presented) The combination of Claim 14, wherein the air comprises circulating air.
16. (Originally presented) The combination of Claim 1, wherein the air circulating device comprises an electrical fan.
17. (Originally presented) The combination of Claim 1, wherein the air circulating device comprises a heat pump or an air pump.
18. (Originally presented) The combination of Claim 1, wherein the thermally conductive wall comprises stainless steel.
19. (Originally presented) The combination of Claim 18, wherein the thermally conductive wall further comprises glass.
20. (Originally presented) The combination of Claim 1, wherein the thermally conductive wall comprises a thermally conductive plastic.
21. (Presently Amended) A light appliance with a cooling arrangement, comprising:
 - a) a light appliance;
 - b) a sealed liquid-tight enclosure for the light appliance that gives off unwanted heat into surrounding air within the enclosure during operation, the enclosure having an external wall at least part of which is thermally conductive;
 - c) a medium that is in contact with said external wall of the enclosure; ~~and the medium~~
 - a) having adequate thermal conductivity; and
 - b) being sufficiently cooler than the external wall of the enclosurethat an air circulating device for circulating air, heated by the light appliance or by the air circulating device, to the thermally conductive portion of the external wall ~~for removes~~ ing

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sufficient heat from the air by dissipating the heat into the cooler medium through said thermally conductive portion so as to substantially increase lifetime of the light appliance.

22. (Originally presented) The combination of Claim 21, wherein the light appliance comprises a filamented lamp or a high intensity gas discharge lamp.

23. (Originally presented) The combination of Claim 22, wherein the light appliance further comprises a heat sink for removing heat from the lamp.

24. (Originally presented) The combination of Claim 22, wherein the thermally conductive wall comprises stainless steel.

25. (Originally presented) The combination of Claim 24, wherein the thermally conductive wall further comprises glass.

26. (Originally presented) The combination of Claim 21, wherein the thermally conductive wall comprises a thermally conducting plastic.

27. (Presently Amended) A light appliance with a cooling arrangement, comprising:

- a) a light appliance;
- b) a sealed liquid-tight enclosure for the light appliance that gives off unwanted heat into surrounding air within the enclosure during operation, the enclosure having an external wall at least part of which is thermally conductive;
- c) a medium that is in contact with said external wall of the enclosure; and the medium
 - a) having adequate thermal conductivity; and
 - b) being sufficiently cooler than the external wall of the enclosure

that an air circulating device for circulating air, heated by the light appliance or by the air circulating device, to the thermally conductive portion of the external wall ~~for removing~~ ing sufficient heat from the air by dissipating the heat into the cooler medium through said thermally conductive portion so as to substantially increase lifetime of the light appliance.

28. (Originally presented) The combination of Claim 27, wherein the light appliance comprises a filamented lamp or a high intensity gas discharge lamp.

29. (Originally presented) The combination of Claim 28, wherein the light appliance further comprises a heat sink for removing heat from the lamp.

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30. (Originally presented) The combination of Claim 28, wherein the thermally conductive wall comprises stainless steel.

31. (Originally presented) The combination of Claim 30, wherein the thermally conductive wall further comprises glass.

32. (Originally presented) The combination of Claim 21, wherein the thermally conductive wall comprises a thermally conducting plastic.

33. (newly presented) The combination of Claim 1, wherein the medium:

- a) has adequate thermal conductivity; and
- b) is sufficiently cooler than the external wall of the enclosure

as to eliminate the need for heat fins projecting inwardly from the inner surface of said external wall.

34. (newly presented) The combination of Claim 1, wherein the medium:

- a) has adequate thermal conductivity; and
- b) is sufficiently cooler than the external wall of the enclosure

as to eliminate the need for directing said air, heated by the light appliance or by the air circulating device, into a channel formed between an interior surface of the external wall of the enclosure and a sleeve surrounding the light appliance.